WHAT IS CLAIMED IS:

1. An image processing apparatus comprising:

a first memory section which stores the image information given in the page memory;

5   a region recognition section which creates the region recognition signal of the image information simultaneously with storing the information in the first memory section;

a second memory section which stores the region
10   recognition signal created by the region recognition section in the page memory;

a recognition signal modifying section which reads out and modifies the region recognition signal stored in the second memory section; and

15   an improved picture quality modifying section which reads out the image information stored in the first memory section and modifies the image information in accordance with the region recognition signal modified by the recognition signal modifying section.

20   2. The image processing apparatus according to claim 1, wherein the first memory section includes the memory section which compresses the image information and stores in the page memory,

and the improved picture quality modifying section
25   reads out the image information which the first memory section stores, and modifies the image information in compliance with the region recognition signal which the

recognition signal modifying section modified when the image information is depressed.

3. The image processing apparatus according to claim 1, wherein the improved picture quality modifying section includes an improved picture quality modifying section which transforms the region recognition signal which the second memory section stores into the printing control signal, and reads out and modifies the image information which the first memory section stores in compliance with the printing control signal.

4. The image processing apparatus according to claim 1, wherein the recognition signal modifying section includes a recognition signal modifying section which reads out the region recognition signal which the second memory section stores and modifies the region recognition signal at the resolution different from the resolution of the image information.

5. The image processing apparatus according to claim 1, wherein the improved picture quality modifying section is an output gray-scale processing section which reads the image information which the first memory section stores and modifies the image information of higher resolution than the resolution of the image information in compliance with the region recognition signal which the recognition signal modifying section modified.

6. The image processing apparatus according to

claim 1, wherein the first memory section has a memory section which compresses the image information by the first compression section and stores the image information in the page memory,

5   and further has the second memory section which compresses the image information by the second compression section different from the first compression section and stores the image information in the page memory.

10   7.   The image processing apparatus according to claim 1, wherein the recognition signal modifying section creates the page-by-page data of the image information and modifies the region recognition signal read from the second memory section in compliance with
15   the page-by-page data.

    8.   The image processing apparatus according to claim 1, wherein the recognition signal modifying section establishes the image mode including at least character or photograph, and modifies the region
20   recognition signal read from the second memory section in compliance with the established image mode.

    9.   The image processing apparatus according to claim 1, wherein the recognition signal modifying section establishes the image mode including character
25   or photograph, and modifies the region recognition signal read from the second memory section in compliance with the established image mode,

and further the improved picture quality modifying section reads out the image information which the first memory section stores and modifies the color tone of the image information in compliance with the region

5 recognition signal modified by the recognition signal modifying section.

10. The image processing apparatus according to claim 1, wherein the improved picture quality modifying section reads out the image information which the first

10 memory section stores and the region recognition signal modified by the recognition signal modifying section, compresses these and stores in the storage unit different from the page memory, further depresses and reads out these, and modifies the image information in

15 compliance with the region recognition signal modified by the recognition signal modifying section.

11. The image processing apparatus according to claim 1, wherein the first memory section includes a memory section which compresses the image information,

20 and stores the parameters for improved picture quality required after depression as recording control signals associated with the compressed image information in the page memory,

and the improved picture quality modifying section

25 reads out the image information which the first memory section stores and the region recognition signal modified by the recognition signal modifying section,

compressing these and storing them in the storage unit different from the page memory, further depressing and reading them out, and modifying the image information in compliance with at least either of the region recognition signal or the recording control signal modified by the recognition signal modifying section.

12. The image processing apparatus according to claim 1, further comprising:

a recognition section which finds the page-by-page feature amount of the image information and recognizing whether the image information is white and black image or not in compliance with the feature amount;

a modifying section which modifies the region recognition signal stored in the second memory section in compliance with being the black and white image when the recognition section recognizes the image information as the black and white image; and

a color modifying section which transforms the image information into the black and white image, and modifies and outputting the image in compliance with the region recognition signal modified by the modifying section.

13. The image processing apparatus according to claim 1, further comprising:

a recognition section which finds the page-by-page feature amount of the image information and recognizes whether the image information is white and black image

or not in compliance with the feature amount;

a modifying section which transforms the region recognition signal stored in the second memory section into the printing control signal when the recognition section recognizes the image information as the black and white image; and

a color modifying section which transforms the image information into the black and white image, and modifying and outputs the image in compliance with the printing control signal transformed by the modifying section.

14.   The image processing apparatus according to claim 1, further comprising:

an external interface which transmits the recognition signal modified by the recognition signal modifying section and the image information modified by the improved picture quality modifying section to a plurality of the image forming apparatus.

15.   An image processing apparatus comprising:

the first memory section which stores the image information given in the page memory;

an attribute recognition section which generates the attribute information of the image information simultaneously with storing the information in the first memory section;

the second memory section which stores the attribute information created by the attribute

recognition section in the page memory;

a attribute information modifying section which reads out and modifies the attribute information stored in the second memory section; and

5   a gray-scale modifying processing section which reads out the mage information which the first memory section stores and modifies the image information in compliance with the attribute information which the attribute information modifying section modified.

10   16.   The image processing apparatus according to one of claims 1 and 15, characterized in that the recognition signal modifying section has further a color modifying section which transforms either one of the region recognition signal or the attribute

15   information into the printing control signal and modifies the color of the image information in compliance with the printing control signal.

17.   The image processing apparatus according to claim 16, further comprising:

20   a parameter setting section which sets parameters for carrying out a plurality of picture quality control on the printing control signal; and

a processing section which processes a plurality of image information in compliance with the parameters

25   for picture quality control which the setting section established.

18.   The image processing apparatus according to

claim 16, further comprising:

a color modification changing section which corrects at least one of the color characteristics and differential color characteristics of a plurality of

5   image forming apparatus in compliance with the printing control signal.

19.   An image processing apparatus comprising:

the first storing means for storing the image information given in the page memory;

10   a region recognition means for creating the region recognition signal of the image information simultaneously with storing the information in the first memory section;

the second storing means for storing the region

15   recognition signal created by the region recognition means in the page memory;

a recognition signal modifying means for reading out and modifying the region recognition signal stored in the second memory section; and

20   an image information modifying means for reading out the image information which the first storage means stores, and modifying the image information in compliance with the region recognition signal which the means for modifying the recognition signal modified.

25   20.   An image processing apparatus comprising:

the first storing means for storing the image information given in the page memory;

an attribute recognition means for creating the
attribute information of the image information
simultaneously with storing the information in the
first memory section;

5   the second storing means for storing the attribute
information created by the attribute recognition means
in the page memory;

an attribute information modifying means for
reading and modifying the attribute information stored
10   in the second memory section; and

an image information modifying means for reading
out the image information which the first storage means
stores, and modifying the image information in
compliance with the attribute information modified by
15   the attribute information modifying means.